

REMARKS

Claims 21-31 are pending in the present application. Claims 21-31 have been rejected. 21-31 have been amended. No new matter has been added.

35 U.S.C. § 102(e) Rejections

Claims 21-31 are rejected under 35 U.S.C. § 102(e) as being anticipated by Stenberg (International Patent Publication No. WO 01/13666). Applicants respectfully disagree.

Claim 21 contains features that are neither disclosed nor suggested by Stenberg. Stenberg teaches a method for authenticating a mobile terminal in a hybrid network architecture (i.e., DTETRA network), comprising the combination of a TETRA network (i.e., radio access network layer) and a GSM network (i.e., an overlaying network layer). The authentication parameters of the TETRA radio access network layer are derived from the GSM authentication parameters (authentication triplet (RAND, SRES, Kc)). Conversely, the mobile terminal is adapted to restore GSM authentication parameters from TETRA authentication parameters (authentication triplet (RS, KS, KS')). This can be done from the random number RS using a cryptographic algorithm A3 (see, e.g., Stenberg, page 10 line 30 – page 11 line 6). The random number RS can also be used to derive the TETRA authentication parameters by applying a cryptographic algorithm A8s (see Stenberg, page 11, line 13).

First, Applicants respectfully submit that Stenberg fails to teach or suggest the **terminal inserts, in an access request, data for identifying the user to said two entities of the network and the calculated authentication data, and transmits the access request to an access controller, wherein the inserted data for identifying the user comprises a distinct set of data for each of the two entities** as taught in claim 21 as amended. In the rejection of claim 21, the Examiner states that a similar feature is taught by Stenberg at page 4 lines 25-35. Applicants respectfully disagree. The cited portion of Stenberg merely describes inserting a single authentication triplet of the GSM network. Applicants respectfully submit that the authentication triplet as described by the Examiner is used to identify a user to one entity of the network (i.e., GSM network). As stated in Stenberg, the GSM triplet described in Stenberg is used to derive the identification data for the TETRA network (see, e.g., Stenberg lines 19-17). Thus, in Stenberg, only one piece of data for identifying the user to an entity is inserted (i.e., the GSM

triplet), and the second piece of data may be later derived from the first. In contrast, claim 21 teaches that the inserted data comprises a distinct set of data for each of the two entities. Stenberg teaches inserting, at most, one distinct set of data.

Second, Applicants respectfully submit that Stenberg entirely fails to describe or suggest **the access controller transmits, to each of the two entities, a respective authentication request, containing the identification data and the distinct set of inserted data for authenticating the user to the respective entity of the network, contained in the access request**, as taught by claim 21 as amended.

In the rejection to claim 21, the Examiner suggests that a similar feature is taught by Stenberg at page 18, lines 13-15. Applicants respectfully disagree. As explicitly stated in Stenberg, the first authentication parameters (e.g., first authentication request) are received from the radio access network infrastructure, and the second authentication parameter (e.g., second authentication request) is derived from the first authentication request (see, e.g., Stenberg lines 17-19). Stenberg actually teaches away from transmitting the second authentication request because the second authentication request is derived from the first authentication request and it would be a waste of network resources to transmit the second authentication request.

Because Stenberg fails to teach or suggest each and every feature of independent 21 as amended, it cannot possibly anticipate claim 21. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claim 21.

Claims 22-24 are dependent on claim 21 and are therefore allowable for at least the reasons given above for claim 21. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claims 22-24.

Independent claim 25 contains features that are neither taught nor suggested by the art of record. First, Stenberg entirely fails to teach or suggest **means for inserting, into each transmitted access request, data for identifying the user to each network entity and the calculated authentication data, wherein the calculated authentication data comprises a distinct set of authentication data for each entity** as taught by claim 25 as amended. The Examiner states such a feature is taught by Stenberg at page 15, lines 20-25. Applicants respectfully disagree. The cited section of Stenberg merely teaches sending translated authentication parameters (i.e., GSM authentication triplet) to a mobile station (i.e., a single

network entity). As described with respect to claim 21, the authentication triplet is used to identify a user to one entity of the network (i.e., GSM network). The GSM triplet described in Stenberg is used to derive the identification data for the TETRA network (see, e.g., Stenberg lines 19-17). In Stenberg, only one piece of data for identifying the user to an entity is inserted (i.e., the GSM triplet). Applicants therefore respectfully submit that Stenberg could not possibly teach **the calculated authentication data comprises a distinct set of authentication data for each entity** because Stenberg teaches sending one piece of authentication data and deriving the second piece of authentication data from the first piece of authentication data.

Second, Stenberg fails to teach or suggest **means for transmitting access requests to at least two entities of the network, which requests contain data for identifying and authenticating the user to the network entity and each request being distinct** as taught by claim 25 as amended. In the rejection to claim 25, the Examiner states that a similar feature is taught by Figure 3 of Stenberg. Applicants respectfully disagree. Figure 3 of Stenberg teaches the authentication of the infrastructure and a user according to the TETRA standard (see, Stenberg, page 6, lines 1 and 2). Figure 3 only illustrates authenticating a user using the TETRA standard and illustrates, at most, one network entity. Applicants respectfully submit that the cited portion of Stenberg entirely fails to teach or suggest such a feature. Moreover, nowhere in the Stenberg reference is such a teaching found.

Because Stenberg fails to teach or suggest each and every feature of independent 25 as amended, it cannot possibly anticipate claim 25. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claim 25.

Claims 26 is dependent on claim 25 and is therefore allowable for at least the reasons given above for claim 25. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claim 26.

Independent claim 27 contains features that are neither taught nor suggested by the art of record. Stenberg fails to teach or suggest **means for extracting, from the access request, the data for identifying and authenticating the user to at least two network entities, wherein the data for authenticating the user to at least two network entities comprises a distinct set of data for each of the network entities**. The Examiner states that such a feature is taught by Stenberg at page 15 lines 20-30. Applicants respectfully disagree. The cited portion of Stenberg

teach translating a random challenge number into one or more authentication parameters and have nothing to do with extracting authentication data, and even if they did, the cited portion at most teach extracting the authentication data for one network entity and not a distinct set of authentication data for each network entity as taught by claim 27.

Because Stenberg fails to teach or suggest each and every feature of independent 27 as amended, it cannot possibly anticipate claim 27. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claim 27.

Claims 28 is dependent on claim 27 and is therefore allowable for at least the reasons given above for claim 27. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claim 28.

Independent claim 29 contains features that are neither taught nor suggested by the cited references. Stenberg fails to teach or suggest **means for inserting, into each transmitted access request, data for identifying the user to two network entities and the calculated authentication data, wherein the calculated authentication data comprises a distinct set of data for each of the network entities.** In the rejection of claim 29, the Examiner states that a similar feature is taught by Stenberg at page 15, lines 25-30. Applicants respectfully disagree. As described above, with respect to claim 25 and 27, the cited portion of Stenberg teaches at most extracting authentication data for one network entity (i.e., the GSM triplet).

Because Stenberg fails to teach or suggest each and every feature of independent 29 as amended, it cannot possibly anticipate claim 29. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claim 29.

Claims 30 and 31 are dependent on claim 29 and are therefore allowable for at least the reasons given above for claim 29. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claims 30 and 31.

CONCLUSION

For all the foregoing reasons, Applicants respectfully submit that the application is now in condition for allowance. Reconsideration of the Office Action and an early Notice of Allowance are respectfully requested.

Please apply any required fees to deposit account no. 06-1050. Please also apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: _____

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